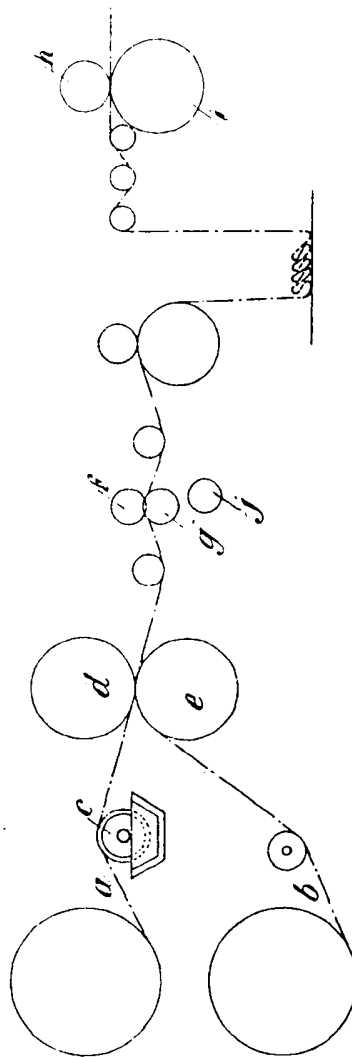


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PROCESS OF EMBOSSING WALL PAPER.  
APPLICATION FILED DEC. 27, 1910

984,443.

Patented Feb. 14, 1911.



# UNITED STATES PATENT OFFICE.

HAROLD WILLIAM SANDERSON, OF CHISWICK, ENGLAND.

PROCESS OF EMBOSSED WALL-PAPER.

984,443.

Specification of Letters Patent. Patented Feb. 14, 1911.

Application filed December 27, 1910. Serial No. 599,478.

*To all whom it may concern:*

Be it known that I, HAROLD WILLIAM SANDERSON, a subject of the King of Great Britain and Ireland, of A. Sanderson & Sons Branch of The Wall Paper Manufacturers Limited, of Chiswick, in the county of Middlesex, England, have invented a new and useful Process of Embossing Wall-Paper, of which the following is a specification.

10 My invention relates to wall papers and the like made by embossing webs of paper, or the like, joined together by an adhesive.

In the process as hitherto carried out in practice, it has been customary to apply a paste, glue, or gum solution (which I will hereinafter refer to as the adhesive) to one of the webs and then to run another web onto the pasted, glued, or gummed, web and then to pass the combined webs over a drying cylinder, or over drying cylinders, then to form them into a roll and afterward to carry this roll to the embossing devices and emboss the combined and dried webs. As it is not practically possible to make the webs of paper, or the like, of exactly the same width and to combine them so that the edges are precisely coincident, some adhesive is necessarily exposed and also some adhesive will exude at the edges and therefore it has been necessary to thoroughly dry the combined webs before they are rolled up, as otherwise, the convolutions of the rolls would adhere at the edges. It has been proposed to cement together two webs and then to pass the combined webs, while in a damp condition, to embossing devices, but the webs cannot be satisfactorily embossed in the damp condition, as the exposed and exuded adhesive would adhere to, and clog, the embossing devices. Further, the embossing of the dried webs is not satisfactory as the pressure applied breaks down the paper counterpart of the embossing devices and moreover the webs, by being dried before embossing, are very liable to separate. For these reasons the embossing of combined papers for paperhanging has been practically abandoned.

The object of my invention is to overcome these objections.

According to my invention, after an adhesive (such as flour, or potato starch, gum, glue, or the like, dissolved in water) has been applied to the webs, so as to cause them to adhere, I pass the webs through a device

which cuts off the edges of the combined webs, thus removing all parts carrying exposed, or exuded, adhesive, and I afterward pass the combined webs between the embossers while they are in a damp, or pulpy, condition, the adhesive at the trimmed edges, however, having become sufficiently dry.

Apparatus for this purpose is illustrated by the accompanying diagram.

It consists of a combination of means for conducting the webs *a, b*, or, as illustrated, one of the webs, to an adhesive-supplying device *c*, and then passing the webs between press rolls *d, e*, so that they adhere and then between slitters, or devices, *f, g*, for cutting off the edges of the combined webs at both sides, so as to remove all parts having exposed, or exuded, adhesive upon them, there being preferably a "winch", or roller, coned toward each end (indicated at *j*) so as to cause the cut-off edges to be kept clear of the combined webs which are being carried forward to the means, illustrated at *h, i*, for embossing the webs while in a damp, or pulpy, condition, owing to the application of the adhesive, and any necessary interval of time between the cutting and embossing to allow the adhesive to soak in and render the combined webs sufficiently plastic, or pulpy. The aforesaid "winch", or roller, may be of any suitable kind, such as slats secured to a mid disk and two smaller end disks carried by a shaft. Any suitable means, such as guide rolls, may be employed for conducting the webs from the preceding to the succeeding members of the aforesaid series.

By conducting the process as described, the embossing can be effected in a more efficient manner and with the application of less power than hitherto. Drying before embossing, and its attendant disadvantages, are obviated, the embossing devices are not liable to injury, as in the case of attempting to emboss the combined webs in a damp condition without cutting off the edges, and the manufacture is conducted in a much simpler and more efficient and economical manner than hitherto, while the webs are not liable to come apart, as is the case when the combined webs are dried before being embossed. As the combined webs are dried in the molded damp condition, the impressed design is much better retained, even

after being pasted and hung on the wall, than is the case when the webs are embossed dry.

I claim: -

5 A continuous process of manufacturing embossed wall paper which consists in passing through a pressure device a plurality of webs at least one of which carries a moist adhesive, whereby said webs are united,  
10 leading the combined web through a trimming device in which both edges of said web are removed together with the exuded

adhesive and then leading the trimmed web through an embossing device while still soft from the moist adhesive but after the latter 15 has dried at the edges of the trimmed web, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HAROLD WILLIAM SANDERSON.

Witnesses:

GILBERT FLETCHER TYSON,  
WILLIAM GERALD REYNOLDS.